IN THE CLAIMS:

1.   (Currently Amended) A <u>computer readable</u> recording medium used for storing data, comprising <u>a data structure encoded on the computer readable recording medium for processing by a computer program to provide a video output on a display device, the data structure including</u>:

5   a digital stream generated by multiplexing a video stream and a graphics stream, wherein:

the graphics stream includes a plurality of display sets each of which is used for a graphics display;

the display set includes a presentation composition segment and an object

10   definition segment for providing a new graphics object to an object buffer;

if an active period of the presentation composition segment in the display set overlaps with an active period of a presentation composition segment in a succeeding display set on a reproduction time axis of the video stream, the display set is able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the

15   succeeding display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object buffer by the display set is not updated to a different graphics object by the succeeding display set.

2.   (Previously Presented) The recording medium of Claim 1, wherein:

the object buffer has a plurality of areas each of which is used for storing graphics generated by decoding; and

the graphics object is assigned an identifier which identifies one of the plurality of

5   areas.

3.   (Previously Presented) The recording medium of Claim 2, wherein:

the active period of the presentation composition segment in the display set is from a decoding start time of the presentation composition segment in the display set to a display start time of the graphics display which is composited based on the presentation composition

5   segment in the display set; and

the presentation composition segment is provided at a beginning of the display set, and includes time information showing the decoding start time and time information showing the display start time.

4.   (Previously Presented) The recording medium of Claim 3, wherein:

the presentation composition segment is contained within one packet;

the time information showing the decoding start time is a decoding time stamp written in the packet; and

5   the time information showing the display start time is a presentation time stamp written in the packet.

5.   (Cancelled)

6.   (Previously Presented) A reproduction apparatus for reproducing a digital stream generated by multiplexing a video stream and a graphics stream, the reproduction apparatus comprising:

a video decoder operable to decode the video stream to generate a moving picture;

5 and

a graphics decoder operable to decode the graphics stream to generate graphics, and overlay the graphics and the moving picture, wherein:

the graphics decoder includes an object buffer for storing the graphics generated by the decoding;

10 the graphics stream includes a plurality of display sets each of which includes a presentation composition segment and an object definition segment for providing a new graphics object to the object buffer;

if an active period of the presentation composition segment in the display set overlaps with an active period of a presentation composition segment in a succeeding display set

15 on a reproduction time axis of the video stream, the graphics decoder is able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the succeeding display set, by decoding the object definition segment in the display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object

20 buffer by the display set is not updated to a different graphics object by the succeeding display set.

7. (Previously Presented) The reproduction apparatus of Claim 6, wherein:

the graphics decoder further includes:

a processor operable to decode the object definition segment in the display set to generate the graphics object, and write the graphics object to the object buffer; and

5   a controller operable to read a graphics object from the object buffer, and overlay

the read graphics object and the moving picture; and

    the graphics decoder writes a graphics object in the succeeding display set to the

object buffer, whilst simultaneously reading the graphics object in the display set from the object

buffer, to execute pipeline processing.

    8. (Previously Presented) The reproduction apparatus of Claim 7, wherein:

    the presentation composition segment in the display set is provided at a beginning

of the display set;

    the controller decodes the presentation composition segment, and, in accordance

5 with a decoding result of the presentation composition segment, reads the graphics object from

the object buffer and displays the read graphics object.

    9. (Previously Presented) The reproduction apparatus of Claim 8, wherein:

    the presentation composition segment is contained within one packet; and

    the processor starts the decoding at a time shown by a decoding time stamp

written in the packet, and the controller starts the displaying at a time shown by a presentation

5 time stamp written in the packet.

    10. (Previously Presented) The reproduction apparatus of Claim 6, wherein:

    if the graphics object in the display set has a different identifier from a graphics

object in the succeeding display set, the graphics decoder stores the graphics object in the

succeeding display set into a different area of the object buffer from the graphics object in the

5 display set; and

if the graphics object in the display set has a same identifier as the graphics object in the succeeding display set, the graphics decoder stores the graphics object in the succeeding display set into a same area of the object buffer as the graphics object in the display set, so as to overwrite the graphics object in the display set.

11.   (Cancelled)

12.   (Previously Presented) A method of recording onto a recording medium, comprising the steps of:

generating application data; and

recording the application data to the recording medium, wherein:

5   the application data includes a digital stream generated by multiplexing a video stream and a graphics stream;

the graphics stream includes a plurality of display sets each of which is used for a graphics display;

the display set includes a presentation composition segment and an object

10   definition segment for providing a new graphics object to an object buffer;

if an active period of the presentation composition segment in the display set overlaps with an active period of a presentation composition segment in a succeeding display set on a reproduction time axis of the video stream, the display set is able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the

15   succeeding display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object

buffer by the display set is not updated to a different graphics object by the succeeding display

set.

13.   (Currently Amended) A computer-readable recording medium on which a

program used for enabling a computer to reproduce a digital stream generated by multiplexing a

video stream and a graphics stream is recorded, the program enabling the computer to perform

the steps of:

5   decoding the video stream to generate a moving picture; and

decoding the graphics stream to generate graphics, and overlaying the graphics

and the moving picture, wherein:

the graphics stream includes a plurality of display sets each of which includes a

presentation composition segment and an object definition segment for providing a new graphics

10   object to an object buffer;

if an active period of the presentation composition segment in the display set

overlaps with an active period of a presentation composition segment in a succeeding display set

on a reproduction time axis of the video stream, the step of decoding the graphics stream is able

to provide, to the object buffer, a graphics object that is to be referenced by the presentation

15   composition segment in the succeeding display set, by decoding the object definition segment in

the display set, if a predetermined condition is satisfied; and

the predetermined condition is that the graphics object provided to the object

buffer by the display set is not updated to a different graphics object by the succeeding display

set.

14.   (Previously Presented) A method of reproducing a digital stream generated by multiplexing a video stream and a graphics stream, the method comprising the steps of:

decoding the video stream to generate a moving picture; and

decoding the graphics stream to generate graphics, and overlaying the graphics

5   and the moving picture, wherein:

the graphics stream includes a plurality of display sets each of which includes a presentation composition segment and an object definition segment for providing a new graphics object to an object buffer;

if an active period of the presentation composition segment in the display set

10   overlaps with an active period of a presentation composition segment in a succeeding display set on a reproduction time axis of the video stream, the step of decoding the graphics stream is able to provide, to the object buffer, a graphics object that is to be referenced by the presentation composition segment in the succeeding display set, by decoding the object definition segment in the display set, if a predetermined condition is satisfied; and

15   the predetermined condition is that the graphics object provided to the object buffer by the display set is not updated to a different graphics object by the succeeding display set.